

Industrial Injury

A Dynamic Concept for Rehabilitation

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DURING THE PAST DECADE rehabilitation after incapacitating injury or disease has had a tremendous impetus. Medical rehabilitation is not new; it was being done prior to World War II. However, with all due respect to various preexisting facilities for rehabilitation, it must be acknowledged that efforts for the most part were limited to some single aspect of rehabilitation or confined to a given type of disability. Efforts were further restricted by lack of general support and acceptance. The concept of the total rehabilitation program can be said to have become a reality as a result of the program initiated in the armed services and the Veterans Administration. The program initiators, who stood with their feet in the present and their minds tuned to the future, carried the principles back to civilian life, expanded them and made them acceptable.

In a strict definition, rehabilitation is a team approach which utilizes many services, not only medical but social and vocational as well. It is assumed that the person dealt with has a disability of such magnitude that a change of occupation is imperative and that either special training or special equipment is required to make him employable. Consequently rehabilitation centers have been concerned primarily with severe disabilities such as paraplegia, quadriplegia, hemiplegia, loss of limbs, severe poliomyelitis and cerebral palsy. These centers with their total approach are extremely important. They are a must for the severely disabled. Unfortunately there is and has been little offered in cases where it is anticipated the injured person could perform either his previous occupation or some mild modification of his normal employment.

Therefore it must be reemphasized that for every severe injury requiring total rehabilitation there are many injuries requiring only medical rehabilitation. While medical rehabilitation includes the utilization of all branches of medicine, it should be understood the references in this paper to treatment will be confined to restoration by utilization of conservative physical means.

Actually, this communication is a presentation of the theoretical consideration: Should a practical

• Present methods of work capability evaluation are frequently subjective, disputable, and nonobjective. There is inadequate reconditioning especially in cases of older workmen where a return to previous employment under competitive conditions is expected. A "capability evaluation center" is suggested as a possible solution. It should be so organized as to preserve the patient's incentive to return to full production if possible, let him know his potential if less than it was before injury, and help him overcome any tendency that he might have to seek refuge in invalidism.

realistic rehabilitation treatment program be established which will return the injured person to his former occupation, or, failing in this objective, prove he is incapable of performing his former occupation?

Under the existing compensation law it is the obligation of the insurance carrier to provide treatment which will cure or relieve a disability incurred as the result of employment. Theoretically maximum benefit from treatment has not been attained until the patient has been restored to some form of gainful employment and the effect of the injury on the injured person is minimized. Unfortunately both the questions of employability and of maximum benefit from treatment frequently become matters of dispute.

In many instances it becomes the responsibility of a physician to determine whether or not the injured is employable. It is common for the physician to state that the patient can return to work while the patient insists he is incapable of fulfilling the job requirements. It must be recognized that there are numerous extraneous factors which influence these opinions. In many instances these factors are intangible and stem from psychological influences. Some of the psychic influences on the patient are: Feelings of insecurity, fear of discharge for non-performance; fear of a second similar kind of injury; depression from prolonged inertia and defeatism.

Only too frequently the physician's statement of work ability is as subjective as are the patient's complaints. The physician in formulating his opinion may be basing his conclusions upon average experience of similar cases. He may feel the complaints

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are exaggerated, he may actually be biased, or "presurized," in favor of the insurance carrier, or he may be overly sympathetic toward the patient. This is particularly true in borderline cases where it is difficult to evaluate the true extent of disability.

It must be recognized in evaluation that an individual with a given disability may be able to perform under certain working conditions and fail completely in a different working situation. Consequently it is a common experience for him, upon being returned to work, to find himself actually incapable of performing an average day's work.

In disputed cases the patient may be discharged with recommendation of assignment to light work, and all medical and compensation benefits suddenly terminated. In some cases this only serves to lose control of the case as the patient neither receives medical attention nor returns to work. At this point the injured person usually appeals his case to the Industrial Accident Commission and many valuable weeks may be lost while a ruling is awaited. In addition, because of dissatisfaction and stimulation of insecurities, the subjective complaints are increased.

In these questionable circumstances, unless the physician is aware of the total requirements of the work situation and is fully cognizant of the capabilities of the injured person as applied to that particular work situation, it becomes impossible for him to properly evaluate employability. Therefore, in determining when an individual should return to work the physician must estimate and evaluate the following: (1) The individual's subjective complaints, (2) the degree of disability, (3) the nature of the injury, (4) the requirements of the job, and (5) the individual's true working capacity.

From the point of view of the injured person, light work consists of any job that he can perform within the limitations of his abilities, but not being as physically demanding as his normal occupation. Therefore, by nature of this definition light work will vary depending upon the type of injury. For example in the case of a leg injury, light work would consist of any type of activity of the upper extremities, with various degrees of restriction of weight bearing. Another example would be, in the case of an upper extremity injury, work activity requiring the use of the opposite uninjured upper extremity or possibly limited activity of the injured extremity. In the case of back injury it may mean work modifying or restricting the amount of stooping and lifting involved. It is obvious that each situation would have to be considered on the basis of its own merit. If the employer is a large concern which can provide work with a variation in physical demands, the injured person frequently can be fitted into the organization more readily. A small employer may find it more difficult to find suitable activities. The em-

ployer may not be in a financial position, due to competitive factors or because of lack of capitalization, to carry the responsibility of reemployment until the individual is capable of performing a full day's work.

Then there is that other great category of employers who hire by the job. In a situation of this type the employer feels no obligation to rehire the same employees when the job is completed. This is particularly true for construction workers and members of the building trades who are hired by the job. Certainly these employers will not deliberately hire a man for light work. Furthermore, if they find a man is incapable of performing what they consider to be a normal day's work, the man is discharged.

Let us attempt to find out why the conscientious individual fails on attempting to return to work. In the author's experience, the main reasons are:

1. There is no such thing as modified or light work unless the employer desires it. Where there is an understanding employer, the individual may be given an opportunity to gradually adjust to the working situation. This transition to full work has proven to be even more effective if treatment has been continued during the adjustment phase.

2. Improper general reconditioning, especially in cases where there has been prolonged disability. It is a fact that when an injured man has been off work longer than a few weeks he becomes deconditioned. He must be reconditioned to become capable of performing a full day's work. It is a common experience that, in spite of improvement with treatment, upon attempting to work he suffers from increased soreness, generalized fatigue and weakness lasting weeks or even months.

3. Inadequate reduction of disability. A certain percentage of individuals fail on attempting even modified work, and they must be returned temporarily to a status of total disability for a variable period of time, before work is attempted again.

4. Failure of the recognition of the need for modification of the type of employment by the injured himself in instances where there is a degree of permanent disability which prevents him from performing his previous occupation.

5. Failure to carry over medical treatment during the initial weeks of reemployment, resulting in aggravation of symptoms.

Present treatment facilities, no matter how extensive, often fail to recondition properly. In this country they do not simulate true working conditions. Most treatment not only fails to stress function but actually ignores the general reconditioning and work disciplines which are imperative.

The muscles used in work may be different from the muscles injured. The statement that work is the

best treatment is frequently erroneous in that the work load may be excessive and nonspecific and the muscles may decompensate under the load. On the other hand therapeutic exercise for the involved parts does not recondition the body as a whole. Therapeutic exercises can build strength yet not build endurance. What is required is strength and endurance, and this can only be accomplished by a graded program which is specifically designed to this end. This is especially true for older workmen. The prolonged deconditioning is, in some cases, more detrimental than the physical disability resulting from the injury.

In considering this problem a solution could be a center of treatment coupled with a center for evaluation of capability. Distinction must be made between this proposed capability evaluation center and a sheltered workshop. The sheltered workshop takes a person with a fixed disability, such as blindness, epilepsy or cerebral palsy, and fits him into a protective work situation. The job is predetermined on the basis of the disability. The individual receives a given amount of pay, usually either by piece-work or by the hour. These shops are permanent situations and unless the individual voluntarily leaves there is no graduation. This failure to encourage separation from the protected situation is a weakness that should make the use of this unmodified approach unacceptable for dealing with most industrially injured persons.

On the other hand the capability evaluation center could apply the principle of the sheltered workshop plus the purpose of a medical rehabilitation center and have as its basic purpose reduction of disability, the building of endurance, general reconditioning, and capability evaluation. To be effective it is imperative that any program, as suggested, encourage function of the injured parts within the limitations of those parts. There must be job disciplines which approach those of a true working situation. There must be cooperation and consideration both by and for the injured. There must be a willingness and desire for success by the injured and by the administrators. There must be a method of measurement and incentive.

It is undoubtedly true that there are many persons who are capable of two, four or six hours' work, but not of eight hours' continuous work at productive labor. By controlling the work situation, in time and in nature, the individual's work capacity and endurance could be more effectively determined.

From the psychological viewpoint it is important that work should be of a productive nature, for it would demonstrate to the individual that he is capable of gainful employment. Productive work would also serve to reindoctrinate him into a working situation.

Although it is of course impractical to duplicate all types of occupations, if sufficient gradations of work level could be provided and work disciplines maintained, then the program principle would have the prospect of success.

Making this program operative would require the cooperation of the incapacitated person and of the insurance industry.

Some of the stumbling blocks so far as the individual is concerned might be lack of incentive, fear of loss of compensation and fear of loss of rating.

The lack of incentive can be overcome by allowing some additional remuneration for work accomplished. This should be over and above compensation payment. Since work ability would vary, being very low initially and increasing toward normal, it is suggested that it be done on a piece-work basis or on a gradually increasing hourly pay basis, the pay scale being in proportion to normal work accomplished. It would naturally follow that a patient's increase in physical capacity and work tolerance would parallel his increase in productivity and consequently his earning capacity. It would be of paramount importance that in no circumstance could the individual receive the full amount he normally received in employment. Otherwise there would be no inducement to graduate. The supervisory and administrative cost, when added to the patient's additional remuneration, would produce a product at a cost approximating that of normal labor.

There should be an explanation to the injured person of the basis of rating at the Industrial Accident Commission. He should be made to understand that it is not to his advantage to be nonproductive. He should know that he can never recapture his lost wages. He should know that his rating will depend on the degree of permanent disability when his condition is considered fixed and static and not likely to improve. He should be educated to the fact that, if he allows the permanent disability to reach a point where it interferes with his future earning capacity, his loss of earning power will exceed whatever he may possibly gain by his final award.

As a step toward evaluating such a program, a building was constructed utilizing, wherever possible, men over 45 years of age and men with physical disabilities. These men were hired out of the union halls and were paid full union scale wages. They were given the privilege of controlling voluntarily the number of hours they worked each day.

Several conclusions were soon obvious:

1. The average older workman cannot produce competitively against younger men on a full-day basis.
2. The average older man cannot work a full work-day without fatigue, which becomes more ap-

parent as the work week proceeds—particularly if there is considerable physical effort involved.

3. The average older workman frequently refuses to recognize his physical limitations.

4. Because there is no prospect of continuous employment as the job nears the end, there is a tendency to prolong the work by slowing down on the job.

From this experience, it was found that the average older man cannot be hired in a competitive arduous work situation. Older men and men with physical disabilities who follow construction trades can be hired under selected working conditions; they can be hired competitively on an hourly basis provided either the number of hours worked each day or the amount of exertion expended is so controlled as not to exhaust their physical reserves.

If the experience obtained in the foregoing project is a criterion of the ability of men who are actively competing in the open labor market, then it is reasonable to believe it is even more difficult for an older man who has been immobilized for a prolonged period due to injury and has undergone, in addition, deconditioning from lack of generalized activity.

This program of reconditioning then becomes extremely important for the older injured workman and the younger more severely injured workman for the following reasons: First, he has more difficulty

in recovering from a disability. Second, he is less employable in a competitive labor market. Third, he (an older person particularly) is more likely to develop a feeling of insecurity and will subconsciously use his disability as a brace for his own inadequacies.

The proposed program could be used to attempt to return the individual to some form of gainful employment, to increase his earning capacity and capabilities, and give him insight into his abilities. This proposed program is one of capability evaluation. Patients should be selected and should agree to voluntarily participate. The participants should receive some additional remuneration over and above compensation. The total remuneration should not be as great as would ordinarily be earned, lest it reduce incentive to return to normal employment channels.

This program would in effect reduce disability factors in some cases and would serve at the same time to give a clearer picture as to true permanent disability factors in other cases. It would be a visual demonstration to the individual of his own capabilities in terms which he himself can comprehend. It would give a positive medical objective viewpoint as to whether the individual actually is capable of working and of his working capacity. If properly administered this program would give an unbiased approach which would serve as protection to all parties participating.

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